

Abstract

Preferred embodiments of the invention provide systems and methods of facilitating and evaluating user thinking about an arbitrary problem. The system includes first logic to facilitate user specification of the problem to populate a problem statement structure. It also includes second logic to facilitate user specification of a conclusion, related to the problem specification, to populate a conclusion statement structure. It also includes third logic to facilitate user creation and specification of knowledge, related to at least one of the problem specification and the conclusion specification, to populate a knowledge structure. Certain embodiments include control logic to persuade user interaction with the first through third logic to a sequence of interactions within a predefined set of interaction sequences, wherein the predefined set of interactions define an archetype process for user thinking about the problem. Other embodiments include model logic to track user interaction with the first through third logic to construct a user model structure of user development and population of the user model structure, conclusion statement structure, and knowledge structure, and structure analysis logic to analyze the user model structure relative to an archetype model structure. Some embodiments include model logic to track user interaction with the first through third logic to construct a user model structure of user development and population of the problem structure, conclusion statement structure, and knowledge structure; and visual feedback logic to depict an archetype problem-solution structure and to depict the user model structure. And other embodiments include tracking logic to monitor user interactions with the first through third logic and to build a corresponding model of such interactions so that the model, and the corresponding user thinking process, may be evaluated. The system may monitor the user's process of problem solving and the structure of the user's problem solving approach and make suggestions to the user.

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